COMPARATIVE ESTIMATION OF TERBINAFINE HYDROCHLORIDE QUANTIFICATION BY TITRIMETRIC METHODS

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Introduction. One of the important tasks of the pharmacist is to determine the quantitative characteristics of drugs. Improvement of existing methods of analysis and development of new ones, which are faster, more accurate and sensitive methods for the quantitative control of drugs is an urgent problem.

Terbinafine hydrochloride is one of modern drugs of antifungal activity, which nowadays is widely used for treatment of various diseases of mycotic origin either as a separate substance or as a compositional part of multicomponent medicines.

So, constant improvement in the branch of analysis methods and researches about methods of identification and assay of terbinafine is a task of big importance and interest.

Terbinafine hydrochloride is a salt, which is formed by a weak organic base and a strong mineral acid. These salts are frequently encountered among drugs and medicinal substances.

Materials and methods. For quantification of terbinafine hydrochloride were chosen two titrimetric methods such as alkalimetry and argentometry, which are still successfully used in assay of wide range of substances.

For alkalimetric assay were used medium of 96% alcohol and phenolphthalein as an indicator. For argentometric assay was taken back method using silver nitrate as a first titrant, ammonium thiocyanate as a second one and ferric ammonium sulphate as an indicator; modification was in the presence of dibuthyl phthalate.

Both techniques have predicted a blank titration.

Results and discussion. As it has been stated, alaklimetric quantification for terbinafine hydrochloride has a relative mistake about ±0.31%; and argentometric assay in the conditions mentioned above has a relative mistake about ±0.89%.

On the basis of the obtained data we have compared results of argentometric and alkalimetric methods of quantification for terbinafine hydrochloride by their reproducibility.

Conclusions. As it follows from the conducted researches and from the data of the statistics, method of alkalimetric determination for terbinafine hydrochloride in ethanol medium and method of argentometric determination for terbinafine hydrochloride in the presence of dibuthyl phthalate can be used during pharmaceutical analysis.